

Claims 1, 3-7, 9-12, 23, 38, 38 and 41-43 were rejected under 35 U.S.C. § 102(b)/103(a) as being anticipated by, and alternatively unpatentable over, Miyabayashi et al. This rejection is respectfully traversed and reconsideration is requested for the reasons that follow.

The present invention is directed to a coated carbon material wherein edge parts of the core carbon material are partially or entirely coated with a coat-forming carbon material, the carbon material being nearly spherical or ellipsoidal. The carbon material has a specific surface area determined by a BET method of  $5\text{m}^2/\text{g}$  or less. Moreover the covering ratio C which is defined as a weight ratio of coat forming carbon material/(core carbon material + coat-forming carbon material) is greater than 0 and less than or equal to 0.3. Finally, the volume-based integrated value of particles having a diameter of  $1\mu\text{m}$  or less determined by particle size distribution is 10 % or less. This invention has not previously been disclosed or suggested in the prior art including the references cited by the Examiner, as set forth in detail below.

With regard to the cited Miyabayashi et al. reference, this reference clearly does not disclose or suggest the novel features of the present invention, and indeed discloses a coated carbon material that is far different from the claimed invention. More specifically, Miyabayashi et al. merely relates to generating a coated carbon material in which particles were lightly pulverized. Indeed, this is reflected in example 4 of this reference (see column 16, lines 66-67). This is totally different than the pulverization of particles in the present invention which leads to particles which are (i) nearly all spherical or ellipsoidal and (ii) where the volume-based integrated value of particles having a diameter of  $1\mu\text{m}$  or less determined by particle size distribution is 10% or less, since pulverization of fused and aggregated carbon material generates (i) flat or uneven

surfaces capable of reacting with electrolyte with rectangular edges and (ii) a lot of small particles whose diameter is 1  $\mu\text{m}$  or less. It is clear that particles as disclosed in Miyabayashi with flat or uneven surface (grinding face) and angular edges can not be spherical or ellipsoidal. Even further, since more than 10% of small particles (diameter of 1  $\mu\text{m}$  or less) are present in the compositions disclosed in Miyabayashi, this will cause decreased battery properties due to increase of specific surface area, and is thus a drawback of the prior art which the present invention specifically improves upon.

Accordingly, in the method disclosed in the Miyabayashi reference, pulverization of fused and aggregated particles is inevitable. Miyabayashi thus does not disclose or suggest a method for producing a two-layer carbon material which is nearly spherical or ellipsoidal as is the case with Applicants' claimed method. Moreover, the coated carbon material of Miyabayashi will have more than 10% of small particles generated by pulverization. Still further, Miyabayashi differs from the present claimed invention in that, as admitted by the Examiner, Miyabayashi does not disclose or suggest washing the carbonaceous material.

For these reasons, Applicant respectfully submits that claims 1, 3-5, 7, 9-12, 23, 38, 39 and 41-43 are patentable over Miyabayashi et al. and the Examiner's rejections under 35 U.S.C. § 102(b) or alternatively 35 U.S.C. § 103(a) should be withdrawn.

Similarly, Applicant submits that the Examiner's rejection of Claim 27 under 35 U.S.C. § 103(a) as being unpatentable over Miyabayashi et al. is in error and should be withdrawn. As discussed in detail above, Miyabayashi et al. does not disclose or suggest the present invention, in particular because it does not disclose or suggest a method for producing a two-layer carbon material which is nearly spherical or ellipsoidal as is the case with Applicants' claimed method.

Accordingly, Claim 27, which is dependent upon Claim 1, is similarly patentable over Miyabayashi et al., and the Examiner's rejection under 35 U.S.C. § 103(a) on the basis of this reference is respectfully traversed.

In view of the forgoing amendments and arguments, it is respectfully submitted that the present application is in condition for immediate allowance, and such action is earnestly solicited. Should the Examiner require any additional information with respect to the foregoing or to expedite prosecution in any matter, a telephone call to the undersigned at the number listed below is welcome.

Respectfully submitted,

LARSON & TAYLOR, PLC

A handwritten signature in black ink, appearing to read "B. Aaron Schulman", is written over a horizontal line.

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## ATTACHMENT A

### Clean Replacement Claims

Following herewith is a clean copy of each claim which replaces each previous claim having the same number.

F<sub>1</sub>

1. (Four Times Amended) A carbon material wherein edge parts of a core carbon material are partially or entirely coated with a coat-forming carbon material and wherein the carbon material is nearly spherical or ellipsoidal, the carbon material having a specific surface area determined by a BET method of  $5 \text{ m}^2/\text{g}$  or less and a covering ratio  $c$  defined as a weight ratio of coat-forming carbon material/(core carbon material + coat-forming carbon material) of  $0 < c \leq 0.3$ , wherein a volume-based integrated value of particles having a diameter of  $1 \mu\text{m}$  or less determined by particle size distribution is 10% or less.

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## ATTACHMENT B

### Marked Up Replacement Claims

Following herewith is a marked up copy of each rewritten claim.

1. (Four Times Amended) A carbon material wherein edge parts of a core carbon material are partially or entirely coated with a coat-forming carbon material and wherein the carbon material is nearly spherical or ellipsoidal, the carbon material having a specific surface area determined by a BET method of  $5 \text{ m}^2/\text{g}$  or less and a covering ratio  $c$  defined as a weight ratio of coat-forming carbon material/(core carbon material + coat-forming carbon material) of  $0 < c \leq 0.3$ , wherein a volume-based integrated value of particles having a diameter of  $1 \mu\text{m}$  or less determined by particle size distribution is  $10\%$  or less.